

## ABSTRACT OF THE DISCLOSURE

In an improved electrochemical fuel cell assembly, a reactant flow path extends substantially linearly across the electrochemically active area of an electrode. The electrode has an in-plane nonuniform structure in its electrochemically active area as the active area is traversed in the direction of the substantially linear reactant flow path. Embodiments in which the structure of the fuel cell electrode varies substantially symmetrically along the reactant flow path are particularly preferred in fuel cells in which the flow direction of a reactant is periodically reversed.

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